



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,406	07/24/2001	Richard H. Lewis	60980038-2	4796

7590

04/15/2003

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, CO 80528-9599

EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,406

Applicant(s)

LEWIS ET AL.

Examiner

Michael P Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 10-12, 14, 15 and 18 is/are rejected.
- 7) ☒ Claim(s) 5, 8, 9, 13, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on December 4, 2002 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent 6,290,343 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 7, 10-12, 14, 15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamashita (JP 5-318760).

Yamashita discloses all the claimed features of the invention including:

- a system for ink replenishment for an inkjet printer and a method of providing ink to an inkjet printhead (Figs. 1, 3) comprising:

- a frame (2) for holding one or more ink supply modules (13);
- an interconnect member (top wall of 13) on said frame, said interconnect member having an ink supply interface (10) and an air supply interface (11);
- an ink supply module (13) mountable on said frame for coupling to said ink supply interface and for coupling to said air supply interface (Fig. 5) so that ink in said ink supply module may be subjected to predetermined positive pressures greater than ambient air pressure (positive pressure acting on 14);
- an air compressor device (7) in communication with said air supply interface to provide variable air pressure to said ink supply module (pressure from 7 acting on 14 increases, resulting in pressure in 10 being raised, Constitution, lines 5-6) to facilitate a startup non-printing mode prior to reaching a minimum threshold positive pressure (startup mode before pressure reaches constant pressure printing mode, Purpose, lines 1-3) and a different operational printing mode after reaching the minimum threshold positive pressure for transmission of liquid ink from said ink supply module to an inkjet print cartridge (Purpose, lines 1-3);
- a sensor (19) for monitoring the air pressure of said air compressor device (Fig. 3); and
- control electronics coupled to said air compressor device and to said sensor to control said air compressor device based on signals received from said sensor in order to provide greater air pressure from said air compressor device during said startup non-printing mode thereby reducing startup time (Constitution, lines 1-11, pressure from 7 increases);

Art Unit: 2863

- liquid ink inside of said ink supply module (ink in 14);
- providing an auxiliary supply of ink in a collapsible bag (14) inside of a protective enclosure (13);
- connecting the auxiliary ink supply with a print cartridge (12) through an ink delivery conduit (10);
- an air leak vent (vent connected to 14 and 20) in said ink supply module to allow pressure equalization with the atmosphere during shipping, or storage, or non-printing (Fig. 3);
- said control electronics controls the air pressure of said air compressor device by operating said air compressor at a given high speed during said startup non-printing mode (operation of 7 when ink in 14 is empty);
- said control electronics controls the air pressure of said air compressor device by operating said air compressor at a lesser speed during said different operational printing mode (operation of 7 when ink in 14 is full);
- the minimum threshold positive pressure required in order to commence said different operational printing mode is based on a determination of an amount of ink left in said ink supply module (Constitution, lines 6-7);
- said ink supply module is removably installable on said frame (Fig. 5);
- liquid ink from the following group: black, cyan, magenta, yellow (colors of ink);
- reducing the air pressure applied to the collapsible bag to maintain the air pressure below a predetermined maximum level (Constitution, lines 7-11);

- leaking air from the protective enclosure to prevent undesirable excessive air pressure applied to the collapsible bag (via 20).

Allowable Subject Matter

3. Claims 5, 8, 9, 13, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowance

4. The combination or method as claimed wherein a plurality of ink supply modules all connected to said air supply interface so that ink in said plurality of ink supply modules may be subjected to predetermined positive pressures greater than ambient air pressure (claim 5) or a plurality of inkjet printheads each respectively connected to its own separate auxiliary supply of ink and subjecting all of the separate auxiliary supplies of ink to a predetermined sequence of air pressures greater than ambient air pressure (claim 13) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cook et al. (US 6,224,198) discloses a method and apparatus for refilling ink using an air pressure source (Fig. 1).

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

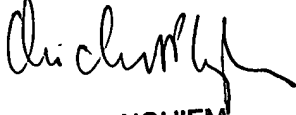
Application/Control Number: 09/912,406

Page 7

Art Unit: 2863

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0956.

A handwritten signature in black ink, appearing to read "Michael Nghiem", written over the printed name.

MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

April 9, 2003